

DISABILITY CULTURE AND EDUCATIONAL OUTCOMES

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ABOUT 10-15% OF WORLD'S POPULATION HAS A DISABILITY

- ◉ In 2011, World's population is 7 billion
- ◉ People with disabilities is 1 billion (WHO, 2011)
- ◉ About 20% of world's poorest people have disabilities.
 - Four out of 5 persons with disabilities live in developing countries.
- ◉ According to UNESCO, 90% children with disabilities in developing countries do not attend school.
- ◉ The global literacy rate for adults with disabilities is as low as 3% and 1% for women with disabilities (UNDP, 1998).

DEMOGRAPHICS OF THE USA

- ◉ Total Population 312 million
- ◉ People of Culturally Diverse Backgrounds :
1 out of 3, about 104 million
- ◉ People with Disabilities 54 million
- ◉ Prevalence of Disabilities is higher among
the culturally diverse 1.5 – 2 times higher than
general population
- ◉ Students with Disabilities 6.6 – 7 million

Number and percentage distribution of students enrolled in postsecondary institutions, by level, disability status, and characteristics: 2007-08

Selected student characteristic	Undergraduate			Graduate and First Professional		
	All students	Students with disabilities ⁽²⁾	Nondisabled students	All students	Students with disabilities ⁽²⁾	Nondisabled students
Number of students ('000)	20,928	2,266	18,662	3,456	261	3,195
Percentage distribution	100.0	10.8	89.2	100.0	7.6	92.4
Sex (%)	100.0	100.0	100.0	100.0	100.0	100.0
Male	43.1	42.7	43.1	40.1	39.2	40.2
Female	56.9	57.3	56.9	59.9	60.8	59.8
Race/ethnicity of student (%)	100.0	100.0	100.0	100.0	100.0	100.0
White	61.8	66.3	61.2	66.6	63.6	66.9
Black	14.0	12.7	14.1	11.7	19.0	11.1
Hispanic	14.1	12.3	14.4	8.0	7.4	8.0
Asian/Pacific Islander	6.6	4.8	6.8	11.1	7.3	11.4
American Indian/Alaska Native	0.8	0.8	0.9	0.3	0.5	0.3
Other	2.7	3.2	2.6	2.3	2.3	2.3
Field of study (%)	100.0	100.0	100.0	100.0	100.0	100.0
Business/management	16.2	14.6	16.4	17.3	13.0	17.6
Education	5.8	5.4	5.9	23.9	28.3	23.6
Engineering/computer science/mathematics	8.9	8.7	8.9	8.8	6.3	9.0
Health	14.3	14.8	14.3	11.7	12.6	11.6
Humanities	15.2	17.0	15.0	6.7	5.9	6.8
Law	†	†	†	4.9	4.2	5.0
Life/physical sciences	6.2	5.6	6.3	4.8	3.9	4.8
Social/behavioral sciences	6.4	6.2	6.4	6.8	7.9	6.7
Vocational/technical	2.4	2.6	2.4	†	†	†
Undeclared	14.1	14.3	14.0	6.3	6.0	6.3
Other	10.5	10.9	10.4	8.7	11.8	8.5

---Not available.

†Not applicable.

‡Reporting standards not met.

DEFINITION OF EDUCATION

- ◉ “Education in the largest sense in any act or experience that has a formative effect on the mind, character, or physical ability of an individual.”
- ◉ “In its technical sense, education is the process by which society deliberately transmits its accumulated knowledge, skills, and values one generation to another.”
- ◉ Education refers to the comprehensive formal instruction that occurs in any level of schooling from kindergarten or before through graduate studies.
 - It includes the **social and behavioral processes** that are combined with formal instruction in educational environments.

DISABILITY ↔ EDUCATION

- One of the ways that **disability can impact key outcomes** (e.g., labor force participation, income, poverty, and broader participation in society) is through its effects on **education**.
- There exists a **complex relationship** between disability and education (or vice versa) based on:
 - **direct** channels of influence
 - age of onset of the disabling condition
 - congenital
 - early in life
 - later in life
 - nature of disability
 - effectiveness of the educational system to accommodate the student
 - **indirect** channels of influence
 - level of educational attainment prior to acquiring a disability
 - sources of financial and natural support
 - demographic characteristics (National Disability Authority [NDA], 2010).

DISABILITY ↔ EDUCATION

- **Disability has the potential to influence the level of education attained.**
 - **At the same time, low educational attainment could also affect the likelihood of acquiring a disability (e.g., through participation in riskier jobs and living in communities with high crime rate) (NDA, 2010).**
- **There are several mechanisms through which health could affect earnings and wealth**
 - **either directly if illness limits labor market attachment or restricts job choice or**
 - **indirectly if childhood health affects cognition or educational attainment.**
 - **These patterns can be seen among individuals with disabilities.**
 - **The hypothesis that health can impact future socioeconomic class is known as health selection or social drift (Hertz, 2006).**

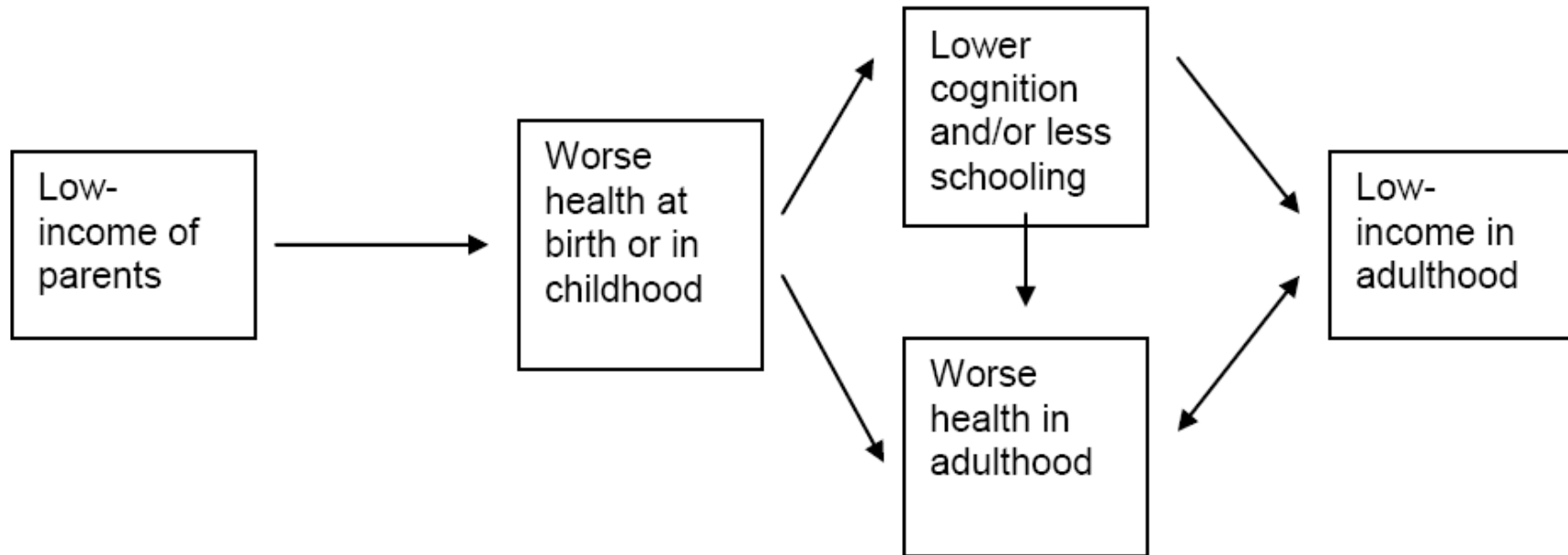
DISPARITIES IN EDUCATION

- Disparities in education have been ongoing for generations.
 - In a large study of individuals 65 years and older, 20.9% without a disability failed to complete high school, compared to 25.1% and 38.6% of individuals with a non-severe or severe disability, respectively (Steinmetz, 2006).
- Great disparities exist when comparing the attainment of higher degrees.
 - About 6% of persons aged 16-64 with a disability have obtained a bachelor's degree or higher, while 17% of individuals in the same age category with no disability (U.S. Census Bureau, 2006).

HEALTH –DISABILITY-OUTCOME

- ◉ Poor health conditions in childhood, especially mental and emotional problems, lead to less education and potentially less economic mobility (Hertz, 2006).
 - Different health/disabling conditions have different effects, with mental and emotional problems at either age related to educational outcomes, as are systemic conditions (e.g., lung, heart, blood, and neurological conditions).
 - Physical impairment had no significant effect (Currie & Stabile, 2003).
- ◉ There is a link between good health and positive labor market outcomes (potentially enhancing economic mobility), but there is little consensus about the magnitude of this connection (Hertz, 2006).
- ◉ While estimates vary, parents' health status accounts for a relatively small share of children's education attainment and income mobility (Hertz, 2006).
- ◉ The causal link between health insurance and outcomes (possibly leading to more or less economic mobility) is difficult to determine because there may be systematic differences between those who have health insurance and those who do not (Hertz, 2006).

Pathways between Health and Income in Adulthood



◉ Source: Kronstadt, 2008

Employment Status of the Civilian Non-Institutional Population 25+ Age by Educational Attainment (Combines People with and without Disabilities)

	Less than H.S. Diploma		H.S. Graduate		Some College or Associate Degree		Bachelor's Degree or Higher	
	2009	2010	2009	2010	2009	2010	2009	2010
Civilian non-institutional population	26,129	25,666	61,469	62,037	51,726	52,221	58,909	59,957
Civilian labor force	12,146 (46.5%)	11,880 (46.3%)	38,186 (62.1%)	38,236 (61.6%)	36,815 (71.2%)	36,840 (70.5%)	45,634 (77.5%)	45,998 (76.7%)
Employed	10,371	10,115	34,487	34,293	33,888	33,748	43,531	43,832
Employment-population ratio	39.7%	39.4%	56.1%	55.3%	65.5%	64.6%	73.9%	73.1%
Unemployed	1,775	1,765	3,699	3,943	2,927	3,093	2,103	2,167
Unemployment rate	14.6%	14.9%	9.7%	10.3%	8.0%	8.3%	4.6%	4.7%

The **civilian labor force** comprises all civilians 16+ years of age and classified as either employed or unemployed.

Employed persons are (a) all civilians who, during the reference week, did any work at all as paid employees, in their own business, profession, or on their own farm, or who worked 15 hours or more as unpaid workers in an enterprise operated by a member of the family, and (b) all those who were not working but who had jobs or businesses from which they were temporarily absent because of illness, bad weather, vacation, child-care problems, maternity or paternity leave, labor-management disputes, job training, or other family or personal reasons, whether or not they were paid for the time off or were seeking other jobs. Each person is counted only once, even if he or she holds more than one job.

Unemployed persons are all persons who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find employment some time during the 4-week period ending with the reference week. Persons who were waiting to be recalled to a job from which they had been laid off need not have been looking for work to be classified as unemployed.

The **unemployment rate** for all civilian workers represents the number of unemployed as a percent of the civilian labor force.

EFFECT OF LIFE COURSE ON INTERACTION OF DISABILITY AND EDUCATIONAL ATTAINMENT

- ◉ Life course perspectives emphasize the:
 - interrelation of social structure and agency,
 - importance of age and generation, and
 - accumulation of disadvantages/advantages over a person's life span.
- ◉ Disability studies primarily focus on the key role of social, institutional, and environmental barriers in constructing disability.
- ◉ Both life course and educational stratification literatures depict the influence of institutional arrangements on an individual's trajectories.
- ◉ The effect of disability can be examined in special education literature on students' learning opportunities and its impact on identity, self efficacy, and later life chances (EDUCATIONAL SOCIOLOGY).
- ◉ Source: Powell, 2003

EDUCATIONAL SOCIOLOGY

- The sociology of education is the study of how public institutions and individual experiences (life course) affect education and its outcomes.
 - It is most concerned with:
 - the public schooling systems of modern industrial societies and
 - the expansion of higher, further, adult, and continuing education (Marshall, 1998).

EDUCATIONAL SOCIOLOGY (CONT'D)

- ◉ Education and social reproduction theory believes that society consists of vying social groups with:
 - different aspirations,
 - different access to life chances and gains, and
 - different social rewards
 - There is an assumption that students have a particular middle class experience at home (which is not true for all students)
 - There is little chance of deviating from traditional curriculum and mode of delivery (to some students this knowledge has no link with perceived future labor market and therefore considered useless) (Jacob, 2001; Wilson & Wyn, 1987).
 - Working class and poor students, striving to succeed and incorporate the school's middle class values in their lives, are accepting their inferior social position as much as if they are almost determined to fail (Sargent, 1994).
- **Students with disabilities often fall in this category.**

EDUCATIONAL SOCIOLOGY (CONT'D)

- ◉ The social reproduction (i.e., continuation of privilege and wealth) continues to occur because the whole education system is overlain with ideology provided by a dominant group.
- ◉ In effect, they perpetuate the myth that education is available to all to provide a means of achieving wealth and status.
 - Myth stops the students from seeing that their personal troubles are part of major social issues.
 - The education system, over the years, have been successful in maintaining the unequal distribution of status and power (Jacob, 2001).

***SELECTED EDUCATIONAL
APPROACHES FOR STUDENTS
WITH DISABILITIES***

I. LITERACY AMONG CHILDREN FROM DIVERSE BACKGROUNDS

- Literacy is a life-long process that begins at birth.
- Reading instruction to children with disabilities (in special education) has focused on skills centered decoding approach.
 - Breaking the task down into specific hierarchical components.
 - The abstractness of some of the sub-skills presented in isolation may constitute some of the weakness of presenting them to children who have difficulties in acquiring, maintaining, and generalizing concepts.
- Many children with disabilities develop basic literacy in ways remarkably similar to their counterparts without disabilities.
 - To become literate, children must apply their knowledge of spoke language and their understanding of uses of language to reading and writing.
 - These are concurrent processes.

PROCESS OF LITERACY

- ◉ The process to read and write is a continuum that begins at birth (or before).
- ◉ Reading, writing, speaking, and listening abilities develop concurrently and inter-relatedly, rather than sequentially.
- ◉ The function of literacy is integral to literacy learning.
- ◉ Children learn written language through active engagement with their world.
 - Implications for practitioners and parents of children with disabilities (Koopenhaver, Coleman, Calman, & Yoder, 1991).

II. POST-SECONDARY EDUCATION MODELS: STUDENTS WITH INTELLECTUAL DISABILITIES

- ◎ Some schools collaborate with local two- and four-year colleges to offer dual enrollment options for students with **intellectual disabilities** aged 18+ (who are still receiving services from their high schools under IDEA) (Hart, Grigal, Sax, Martinez, & Will, 2006).
- ◎ Three models of post-secondary education programs:
 - 1. Mixed/hybrid model:
 - Students participate in mainstreamed academic classes (audit or credit) and/or social activities.
 - Participate in life skills and transition classes with other students with disabilities.
 - Student gain employment experience on- and/or off-campus.

POST-SECONDARY EDUCATION MODELS: STUDENTS WITH ID (CONT'D)

- Three models of post-secondary education programs:
 - 2. Substantially separate model:
 - Participate in life skills and transition classes with other students with disabilities.
 - Students may have the opportunity to participate in generic social activities.
 - Students may be offered on- or off-campus employment options.
 - 3. Inclusive individual support model:
 - Students receive individualized services (e.g., educational coach, tutor, technology, natural support) in college courses and/or degree/certification programs (credit or audit).
 - The focus is no establishing a student-identified career goal to direct the course of study and employment experiences (focuses on interagency collaboration).

III. THE SOCIAL COGNITIVE CAREER THEORY (SCCT)

- ◉ The Minority-Disability (MIND) Alliance in Science, Technology, Engineering, and Mathematics (STEM) is composed of:
 - Hunter College, City University of New York, New York
 - Southern University and A&M College, Baton Rouge, Louisiana
- ◉ The MIND Alliance brings together expertise, experience, and considerable institutional, programmatic, and personnel resources of two minority institutions of higher education to provide best practice educational and career development services to students with disabilities from racial and ethnic minority backgrounds.
- ◉ The aim is to:
 - Enhance their chance for success in STEM education and careers
 - Develop and validate innovative ways to effectively identify students with science interests for the purpose of developing abilities and supporting them in their STEM educational and career pursuits.
 - Educational support and career development services provided through this project are having significant direct educational and career impact on and benefits for students with disabilities from racial and ethnic minority backgrounds in New York, New Jersey, and Louisiana

Social-Cognitive Predictors of Intention to Pursue STEM Education and Careers in High School and College Students with Disabilities

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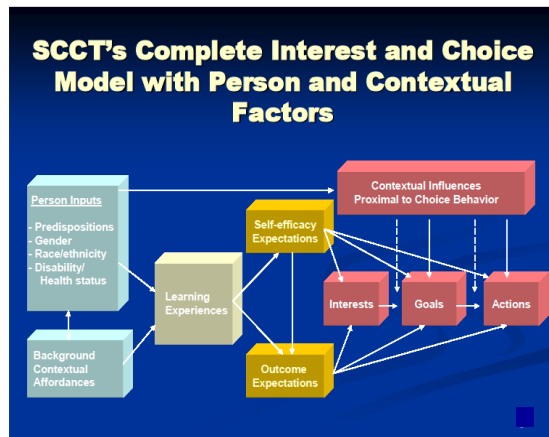
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Introduction

The demographic makeup of the United States is changing. The European American representation in the population is projected to fall from 81% in 2000 to 52% in 2050. Conversely, the number of Hispanics or those of Latino origin is projected to steadily increase from 12.6% of the American population in 2000 to 24.4% in 2050. The African American population will rise from 12.7% to 14.6% in 2050. Asian Americans will from 3.8% to 8%. The American Indian and Alaska Native representation in the U.S. population will increase from 1% in 2000 to 2% in 2050. Without a doubt, the U.S. population is becoming more racially and ethnically diverse. However, individuals with disabilities from racial and ethnic minority backgrounds are significantly under represented in the science, technology, engineering, and mathematics (STEM) fields.

Social cognitive career theory (SCCT; Lent, Brown, & Hackett, 1994; Lent et al., 2008) can be used as a conceptual framework to study factors promoting academic and career interests in STEM. The SCCT is an extension of Albert Bandura's (1986) general social cognitive theory to explain academic and career behavior. According to Lent et al. (2000), SCCT can form the foundation for conceptualizing and designing career development interventions, including efforts to expand the STEM pipeline. The key elements of SCCT include self-efficacy beliefs, outcome expectations, contextual supports and barriers, goals and intention, and career outcome. Relationships among key constructs of the SCCT are depicted in Figure 1. The purpose of this study was to examine the relations of STEM self-efficacy, outcome expectations, interests, contextual supports and barriers, and STEM educational goals in high school and college students with disabilities.

Figure 1. Theoretical Relationship Among Variables in the SCCT Model



Methodology

Participants

Participants were students with disabilities who participated in the MIND Alliance project at Hunter College, City University of New York and Southern University at Baton Rouge in academic year 2008-2009. The sample included 65 high school students (52%) and 60 college students (48%), with 63 male students (50%) and 62 female students (50%). The mean age of the participants was 22.20 years ($SD=9.64$). Race and ethnicity of the students are diverse, with 64 African Americans (51%), 13 Hispanics (11%), 16 American Indians (13%), five Asian Americans (4%), 17 European Americans (14%), and 10 other (8%). The majority of the students report sensory disabilities, learning disabilities, and mental disabilities.

Procedure

SCCT assessment data were extracted from the files of high school and college students who participated in the MIND Alliance project at Hunter College and Southern University in academic year 2008-2009. Students completed the SCCT instruments as part of their career assessment and planning services.

Results

The correlation matrix of all variables included in the hierarchical regression are presented in Table 1.

Hierarchical regression was used to analyze the relationship between the SCCT predictors and STEM intention after controlling for the effect of demographic covariates.

Table 1. Correlation Matrix for the Demographic Covariates and SCCT Variables.

Variables.	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. White	--								
2. Woman	.10	--							
3. College status	.16	.04	--						
4. STEM support	.04	.16	.11	--					
5. STEM barrier	-.08	.03	-.25**	-.07	--				
6. STEM self-efficacy	.05	.004	.04	.40**	-.07	--			
7. STEM expectation	-.03	.13	-.20*	.49**	.01	.54**	--		
8. STEM interest	.10	-.04	.05	.26**	-.03	.38**	.28**	--	
9. STEM intention	.08	.14	.39**	.29**	.001	.41**	.24**	.48**	--

Note: * $p < .05$, ** $p < .01$

The full model accounted for 46% of the variance, $R^2 = .46$, $F(8,116) = 12.43$, $p < .001$. The first step of the regression analysis, in which the demographic covariates (gender [woman vs. man], race [white vs. nonwhite], and student status [college vs. high school]) were entered, contributed significantly to the variance in STEM intention scores. $\Delta R^2 = 0.17$, $F(3, 121) = 8.21$, $p < .001$. Examining the standardized partial regression coefficients indicated that there is no race and gender effect on STEM intention. However, as expected, college student status is significantly associated with STEM intention with $\beta = .39$, $t(124) = 4.59$, $p < .001$. The SCCT predictors (STEM self-efficacy, outcome expectations, barriers, support, and interest) entered in Step 2 also contributed significantly to increasing the variance explained in commitment scores, $\Delta R^2 = 0.29$, $F(5,116) = 12.60$, $p < .001$, suggesting that SCCT variables are significantly related to STEM intention after controlling for the effect of the demographic covariates. It should be noted that the college status variable cannot mediate the relationship between the significant SCCT variables and STEM intention. Examining the standardized partial regression coefficients within this step, STEM self-efficacy with $\beta = .22$, $t(124) = 2.50$, $p < .05$ and STEM interests with $\beta = .37$, $t(124) = 4.86$, $p < 0.01$, both contributed significantly to the change in variance in STEM intention scores, indicating that higher levels of STEM self-efficacy beliefs and STEM interests predicted higher levels of intention to pursue STEM education and careers. The college status variable cannot mediate the relationship between significant SCCT variables and the STEM intention variable.

Conclusion

Social-cognitive career theory can be used to predict STEM education and career intention of students with disabilities from both majority and racial and ethnic minority backgrounds. Helping students develop strong STEM self-efficacy beliefs and STEM career interests through career counseling, summer institute experience, and mentoring could improve recruitment and retention of students with disabilities majoring in STEM fields.

References

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IV. UNIVERSAL INSTRUCTIONAL DESIGN

- ◎ The goal of education is to promote:
 - mastery of content knowledge
 - mastery of the learning process

- ◎ Education needs to transform novice learners into expert learners
 - individuals who want to learn
 - who know how to learn strategically
 - who, in their own highly individual and flexible ways, are well prepared for a lifetime of learning

- ◎ Universal Design for Learning (UDL) helps educators meet this goal by providing a framework for understanding how to create curricula that meets the needs of all learners.

THREE PRINCIPLES OF UDL

I. Provide Multiple Means of Representation

Perception

Language, expressions, symbols

Comprehension

II. Provide Multiple Means of Action and Expression

Physical Action

Expression and communication

Executive function

III. Provide Multiple Means of Engagement

Recruiting interest

Sustaining effort and persistence

Self-regulation

SUGGESTED TEACHING METHODS

- ◉ To support diverse recognition networks (What of learning – How we gather facts and categorize what we see, hear, and read):
 - Provide multiple examples
 - Highlight critical features
 - Provide multiple media and formats
 - Support background context
- ◉ To support diverse strategic networks (How of learning – Planning and performing tasks. How we organize and express our ideas):
 - Provide flexible models of skilled performance
 - Provide opportunities to practice with supports
 - Provide ongoing, relevant feedback
 - Offer flexible opportunities for demonstrating skill
- ◉ To support diverse affective networks (Why of learning - How learners get engaged and stay motivated. How they are challenged, excited, or interested):
 - Offer choices of context and tools
 - Offer adjustable levels of challenge
 - Offer choices of learning context
 - Offer choices of rewards

ACADEMIC SUCCESS/PERFORMANCE

- ◎ To understand differences in academic achievement among students of various genders, ethnic groups, or socio-economic backgrounds, educators must look beyond the differences in test scores to examine indicators associated with academic performance (Mulhall, Flowers, & Mertens, 2002).
- ◎ It will become increasingly critical that educators understand these mitigating factors to attain high levels of academic success.
 - This understanding does not suggest there is only one pathway to academic success, but in fact, there are likely to be multiple ways of meeting high academic standards (Alexander, 2000).

SELECTED INDICATORS OF ACADEMIC SUCCESS/PERFORMANCE

- Educational expectations: Students their personal, parental, and teachers' academic expectations.
- Academic efficacy: It reflects the level of confidence or competencies a student reports for completing or succeeding with academically related tasks and achievement.
- Number of books read: The degree to which individuals, families, and schools immerse themselves in literacy materials.
- Parent involvement: Parents may engage in the educational lives of students in numerous ways.
 - This involvement almost always involves conveying their values, attitudes, and support for education and acting in ways that reinforce that support.

SELECTED INDICATORS OF ACADEMIC PERFORMANCE/SUCCESS

- ◉ Self-reported grades: These are likely to be less accurate as compared to their actual grade sheets.
 - They do provide an assessment that matches the pattern of other academic indicators, including student achievement scores.
- ◉ Leadership experience: Participation in professional and social organizations in leadership capacities builds confidence and self-awareness.
- ◉ Practical experience: Steers students interests in areas of a discipline that would otherwise be unexplored in a class room setting.

Not all groups of students are impacted by these factors in a uniform fashion.

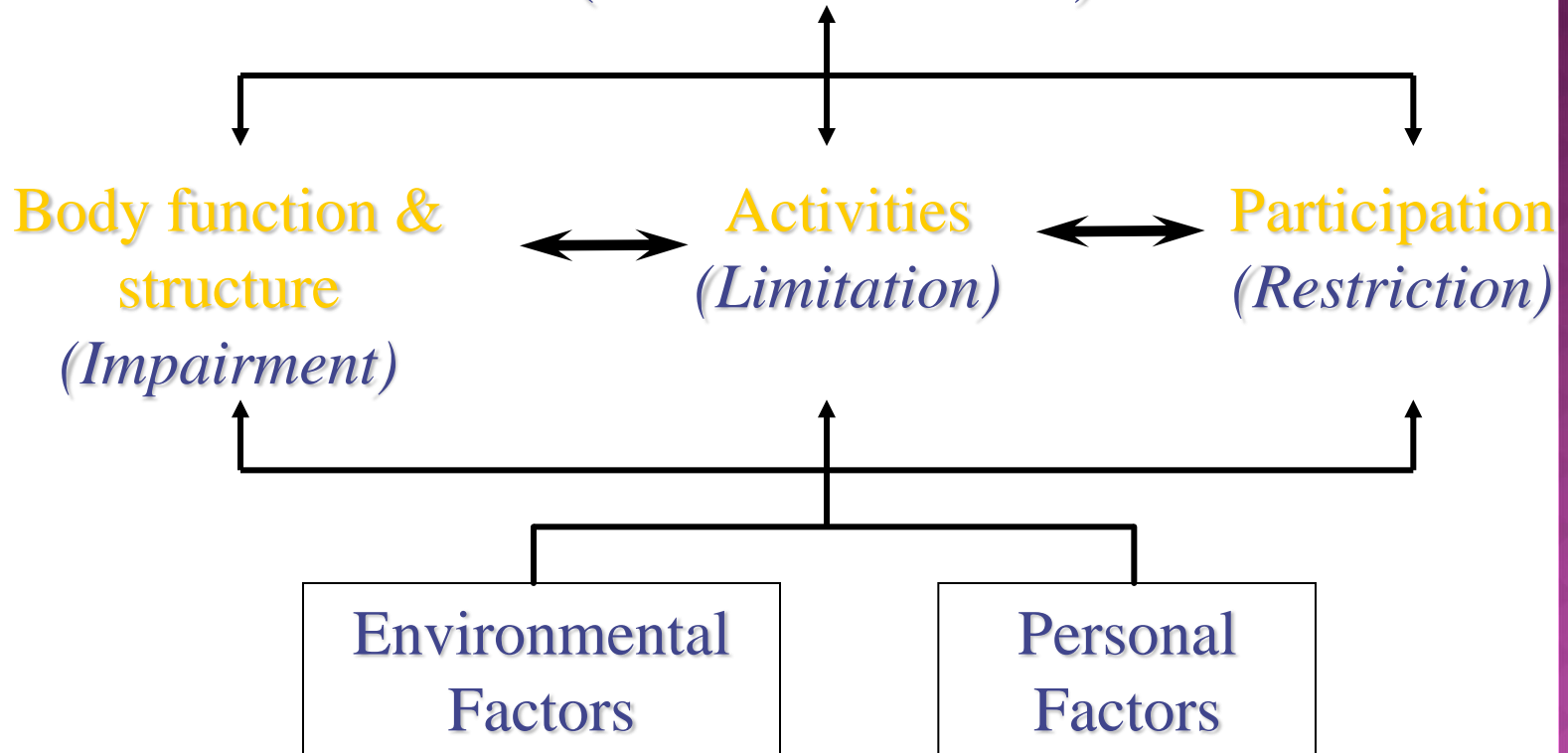
Not all students with disabilities, women, and minorities under-perform in academia.

EDUCATIONAL OUTCOMES...

MUST BE LINKED TO TARGET
WORK AND COMMUNITY LIVING
OUTCOMES IN ADULT LIFE

Interaction of Concepts ICF 2001

Health Condition
(disorder/disease)

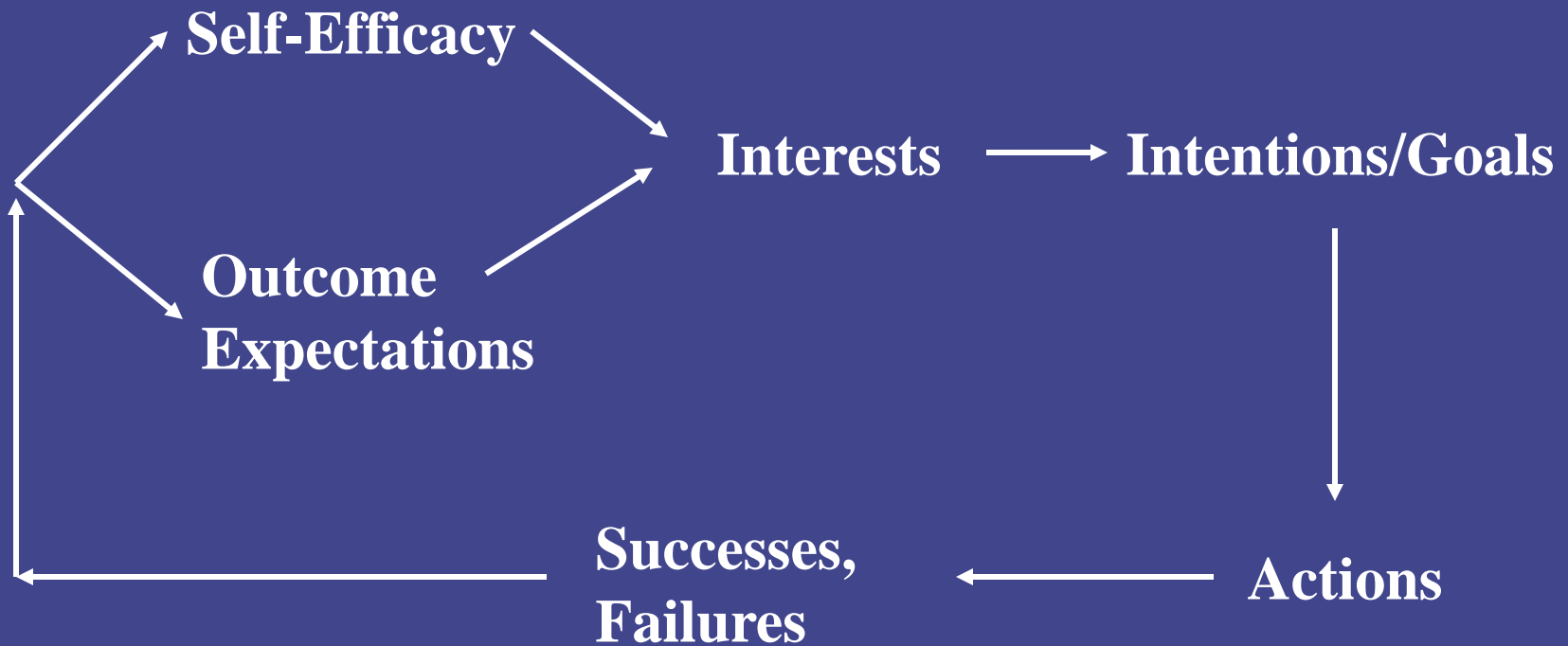


Domain Level	REHABILITATION OUTCOME	EDUCATIONAL OUTCOME		
1		Medical/Physical		
2	Physiological	Neuropsychological	Physical	
3	Medical/Health	Perceptual/Cognitive	Capability/Status	
4	ELIMINATION ▪Bowel ▪Bladder SKIN RESPIRATORY NUTRITON CARDIAC PAIN ▪Sensation ▪Level SEX/REPRODUCTION AUTONOMIC MEDICATION SLEEP	PERCEPTUAL/SPATIAL ▪Perception ▪Spatial Awareness ▪Arousal/Alertness ▪Attention/Concentration ▪Orientation COGNITIVE/INTELLECTUAL ▪Learning ▪Memory ▪Abstract Reasoning ▪Problem Solving COMMUNICATION ▪Expression (Verbal/Written) ▪Reception (Audition/Written) ▪Augmentative ▪Gestural EXECUTIVE FUNCTION	FLEXIBILITY ▪Tone ▪Spasticity ▪Range of Motion Active Passive ▪Posture STRENGTH ENDURANCE ▪Activity Level SENSORY ▪Senses MOTOR FUNCTION ▪Speed COORDINATION ▪Control ▪Body Mechanics ▪Oral/Motor ▪Swallow	ADL's ▪Nourish (feeding/drinking) ▪Dressing ▪Bathing ▪Toileting ▪Grooming ▪Use of equipment ▪Orthotics ▪Prosthetics MOBILITY ▪Transfer ▪Wheelchair (manual/electric) ▪Ambulation ▪Stairs SAFETY MEDICAL/MGMT
5		Discrete Measures		

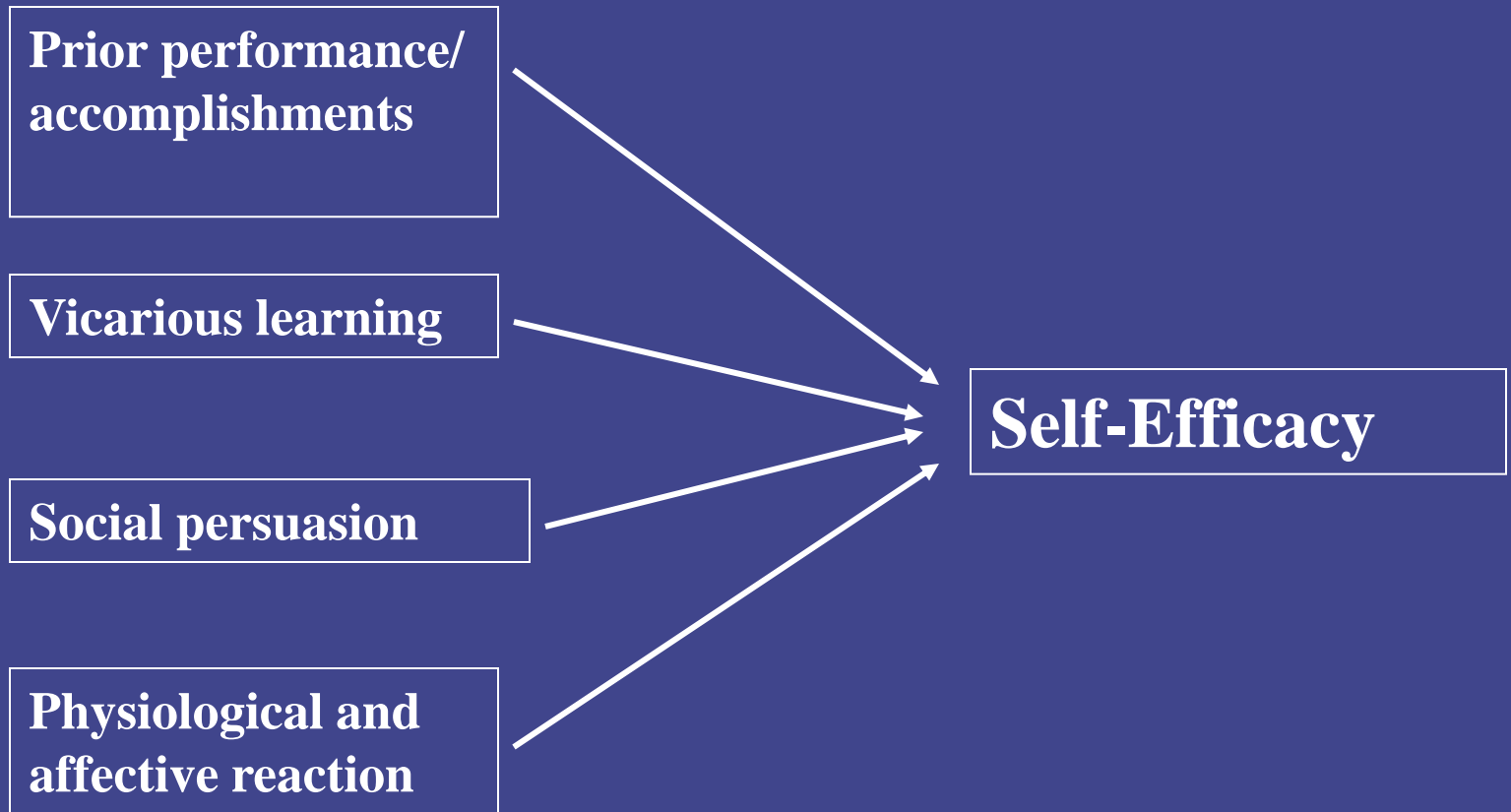
Domain Level	<div> <div>REHABILITATION OUTCOME</div> <div>→</div> <div>EDUCATIONAL OUTCOME</div> </div>		
1	Psychosocial		
2	Psychological	Social	Social
3	Personal-Behavioral	Individual	Family/Other
4	DISABILITY-COPING <ul style="list-style-type: none"> Emotional-coping Behavioral Self Management Disability Awareness Judgment MOTIVATIONAL <ul style="list-style-type: none"> Cooperation/compliance Goal setting/plan PAIN COPING HEALTH/KNOWLEDGE	SOCIAL <ul style="list-style-type: none"> Adjustment/interaction Role Status <ul style="list-style-type: none"> -Gender -Family -Culture COMMUNITY <ul style="list-style-type: none"> Involvement/Activity Resource Use Discharge Plan <ul style="list-style-type: none"> -Living arrangement -Care arrangement -Hospital stay 	DISABILITY COPING <ul style="list-style-type: none"> Emotional-coping Behavioral Self Management Disability Awareness SUPPORT <ul style="list-style-type: none"> Resource Use Support/involvement Peer Support

Domain Level	<div> <div>REHABILITATION</div> <div>→</div> <div>EDUCATIONAL</div> <div>→</div> <div>VOCATIONAL OUTCOMES</div> </div>	
1	Vocational/Avocational	
2	Vocational	Avocational
3	Work	Life Activity
4	VOCATIONAL EXPLORATION <ul style="list-style-type: none"> Counseling/Involve Skills/Explore EDUCATIONAL ACTIVITY <ul style="list-style-type: none"> Academic Technical 	HOME MANAGEMENT <ul style="list-style-type: none"> Laundry Meal Preparation Shopping Home Management Parenting Finance Management Contact with Others LEISURE MANAGEMENT <ul style="list-style-type: none"> Participation TRANSPORTATION <ul style="list-style-type: none"> Driver Training Driving Resource Use HEALTH MANAGEMENT <ul style="list-style-type: none"> Self Health Skills
5	Discrete Measures	

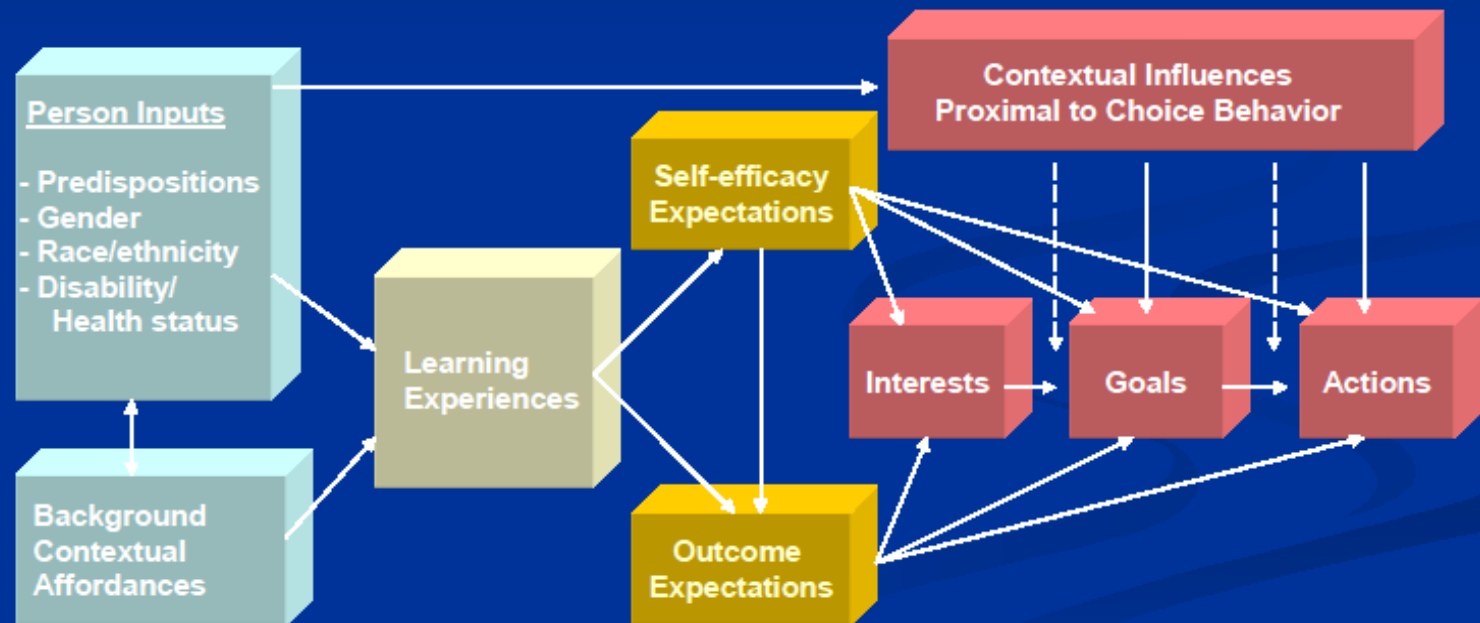
A Simplified View of Interest Development and Career Choice



Development of Self-Efficacy



SCCT's Complete Interest and Choice Model with Person and Contextual Factors



Successful Transition Strategies

Child with a disability

Elementary School

Middle School

High School

Post-Secondary Education

TRANSITION FROM SCHOOL TO WORK

Factors influencing transition to meaningful work life

- ◉ Disability presents a risk factor for career development. Related factors are: socioeconomic status, parental attitudes, and opportunity structures.
- ◉ Frequency of chores at home and in school is positively related to employment of people with congenital disabilities.
- ◉ Interests are learned. The presence of appropriate role models and enrichment opportunities are important.
- ◉ Premature foreclosure of career goals is a major problem—transition should emphasize the career development continuum and not just a point in time on the continuum; expand not limiting the range of occupational choice.

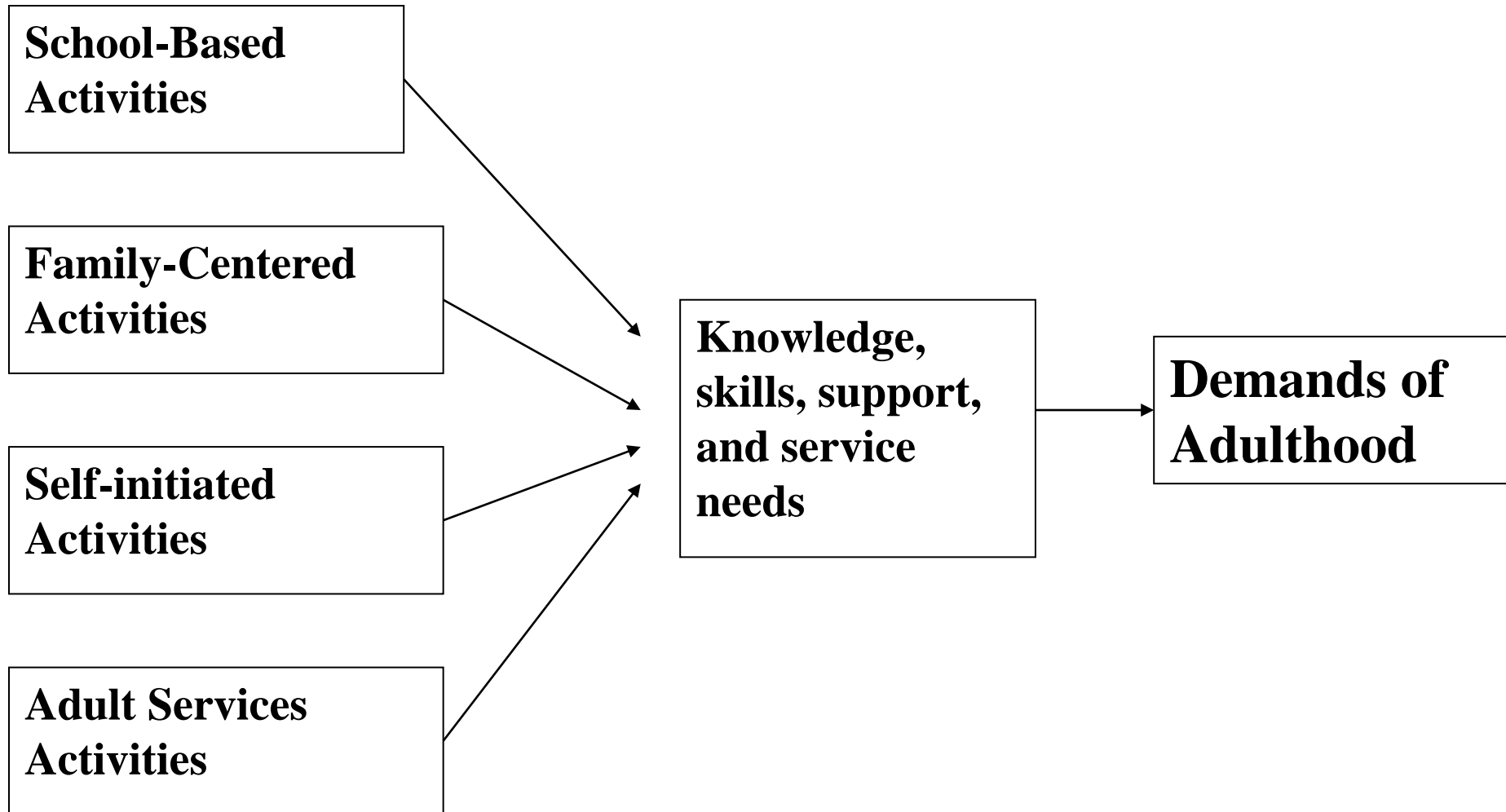
TRANSITION FROM SCHOOL TO WORK

Guiding principles for the transition process

- ◉ Early intervention
- ◉ Comprehensive planning
- ◉ Realistic planning
- ◉ Student Empowerment
- ◉ Family Involvement
- ◉ Sensitive to individual differences and cultural diversity
- ◉ Make good use of support and services
- ◉ Community-based activities
- ◉ Interagency commitment
- ◉ Good timing
- ◉ Capacity building (deficits vs. ability)
- ◉ Prioritize

TRANSITION FROM SCHOOL TO WORK

Demands of Adulthood



TRANSITION FROM SCHOOL TO WORK

To feel okay, one must be reasonably successful in meeting the challenges of everyday life.

Support (family, friends, AT), generic **social services** (e.g., community mental health), and **specialized services** (e.g., vocational rehabilitation).

TRANSITION FROM SCHOOL TO WORK

Functional Life Skills

Self-Care Skills

- ◉ Self-care tasks
- ◉ Toileting
- ◉ Oral hygiene
- ◉ Grooming
- ◉ Bathing or showering
- ◉ Dressing
- ◉ Personal device care (e.g., glasses, hearing aids, contact lenses)
- ◉ Feeding and eating
- ◉ Functional communication
(communicates needs; uses augmentative communication devices)
- ◉ Functional mobility (moves from one place or position to another; transfers to bed, car, bus, toilet, shower, furniture; functional ambulation; drives; use transportation systems (private or public)).

TRANSITION FROM SCHOOL TO WORK

- ◉ Medication routine
- ◉ Socialization
- ◉ Health maintenance
- ◉ Emergence response
- ◉ Sexual expression

Home Management

- ◉ Cleaning
- ◉ Meal preparation
- ◉ Clean up
- ◉ Clothing care
- ◉ Shopping

TRANSITION FROM SCHOOL TO WORK

- ◉ Money management
- ◉ Household maintenance
- ◉ Safety precautions

Care for Others

- ◉ Pet care
- ◉ Child care
- ◉ Adult care

Educational Activities

- ◉ Learning
- ◉ Student role
- ◉ Higher education

TRANSITION FROM SCHOOL TO WORK

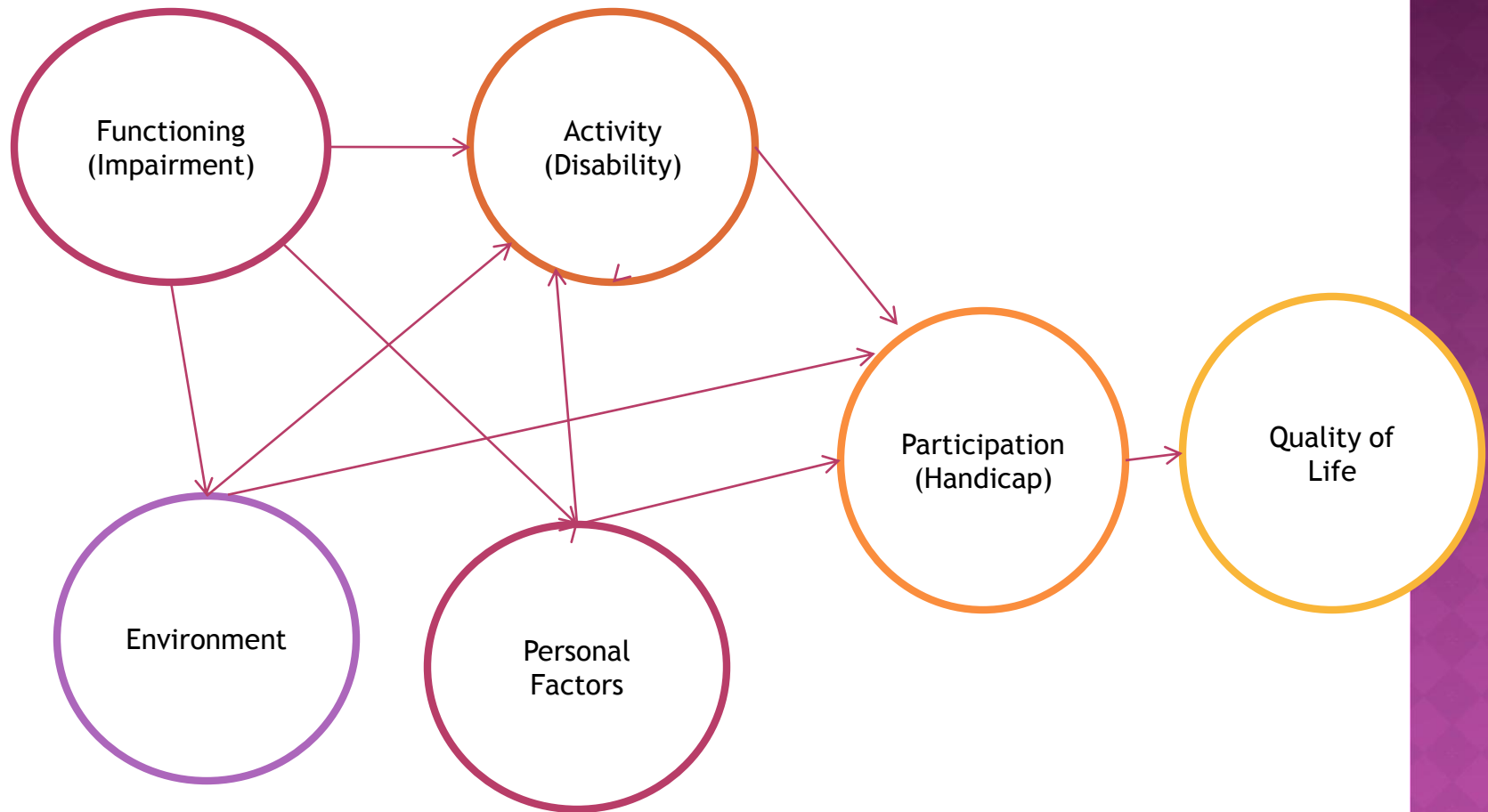
Vocational Activities

- ⊙ Vocational exploration
- ⊙ Job acquisition
- ⊙ Job performance

Play or Leisure

- ⊙ Exploration of interests
- ⊙ Participation in leisure (participate in leisure activity; works to balance leisure and work activities; obtains, maintains, and uses equipment or materials needed for leisure activity).

ICF – ENABLEMENT MODEL



RESEARCH NEED/GAP

1. A longitudinal study should be conducted to investigate the impact of school or university-based disability-related services on the rate of graduation, employment, and quality of life outcomes of students with disabilities as compared to students without disabilities. Such an endeavor should focus data collection at admission, graduation, and 5 and 10 years post-graduation from a random sample of students.
(Early intervention and planning)

RESEARCH NEED/GAP

2. Future research also should address the collaborative roles among the high schools, special education programs, state rehabilitation agencies, and postsecondary institutions in providing disability-related support services. Such a line of research could determine the role of each stakeholder in service delivery and promote effective utilization of resources for optimal student outcome.

(Intra-agency and/or inter-agency collaboration)

RESEARCH NEED/GAP (CONT'D)

3. Efforts must be made to determine the gender- and ethnic-specific differences in perception of needs and satisfaction of students with disabilities.
 - Data on the comparison and contrast of needs and satisfaction survey respondents and non-respondents also would be instructive.
4. Determination of knowledge, skills and competencies required of professionals (e.g., special education teacher, transition specialists, guidance counselor, etc.) who facilitate transition of SWD from
 - school to work
 - community living or
 - high school to post- secondary education
 - post-secondary education to employment.

RESEARCH NEED/GAP (CONT'D)

5. Identify the nature and type of disparities of services provided to SWD of culturally diverse backgrounds, e.g., access to services, ability of negotiate the requirements of the system, etc.
6. Develop a SCCT-based prediction model to facilitate the academic goal achievement and transition to work.

RESEARCH NEED/GAP (CONT'D)

7. A national study to create a demographic database on all students with disabilities.
8. Research involving Office of Disability Services (ODS) policy making and service provision staff to ascertain effects of job satisfaction on outcome.
9. A high quality disability oriented systematic reviews are needed to delineate to current state of the science and research gap. These reviews may consist of studies involving:
 - Randomized Controlled Trials
 - Quasi-Experimental Designs.